

REMARKS

In the Office Action¹, the Examiner rejected claims 1-40 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Appl. Pub. No. US 2002/0124107 by Goodwin (“Goodwin”) in view of U.S. Patent No. 6,813,268 by Kalkunte et al. (“Kalkunte”); and objected to claim 7 for a minor informality.

By this Amendment, Applicants have amended claims 7 and 8 to read “a second-level switch”. Accordingly, Applicants request that the Examiner withdraw the objection to claim 7.

Applicants have also amended claims 1, 11, 20, 27, 30, and 35 and cancelled claims 4, 16, 32, and 36 such that claims 1-3, 5-15, 17-31, 33-35, and 37-40 remain pending in this application. Claims 1, 11, 30, and 35 have been amended to include the subject matter of claims 4, 16, 32, and 36 respectively.

I. Regarding the rejection of claims 1-40 under 35 U.S.C. § 103(a) as being unpatentable over *Goodwin* in view of *Kalkunte*

Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-40 because a *prima facie* case of obviousness has not been established with respect to these claims.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). M.P.E.P. § 2142, 8th Ed., Rev. 2 (May 2004), p. 2100-128.

A *prima facie* case of obviousness has not been established because, among other things, neither *Goodwin* nor *Kalkunte*, taken alone or in combination, teach or suggest each and every element recited by Applicants' claims.

Claim 1 recites a network switch system including, for example:

a plurality of network switches...

wherein the plurality of network switches include a first switch and a second switch, each having a forwarding database, the first switch sending a refresh packet to the second switch when

- a) the first switch receives a network packet containing address information indicating that the forwarding database of the first switch has no corresponding address entry, or
- b) the first switch receives a network packet containing address information indicating that a corresponding address entry in the forwarding database of the second network switch has expired.

(emphasis added). *Goodwin* does not teach or suggest at least these elements.

The Examiner cites *Goodwin* to allegedly teach the first switch sending a refresh packet to the second switch when the first switch receives a network packet containing address information that the forwarding database of the first switch has no corresponding address entry (Office Action at page 4). Applicants respectfully disagree.

Goodwin teaches "VLAN databases stored on any individual switch are synchronized with other switches within a network" (paragraph 0013). "These databases may be updated real-time, so that forwarding of all traffic may be based on the most recent information" (paragraph 0016). "Each switch...may maintain a source

learning related database” and “VAP may read the source learning database within the switch and may advertise these entries to other switches” (paragraph 0026).

Even assuming, absent any teaching in *Goodwin*, that the entries teach the claimed network packets, the entries do not contain “address information indicating that the forwarding database of the first switch has no corresponding address entry,” as recited in claim 1. *Goodwin* teaches: “VAP may generate advertisement frames on regular intervals and may transmit the protocol over the switched network (i.e. backbone network) with all new entries that the switch has learned” (paragraph 0026). However, this transmission between switches does not contain “address information indicating that the forwarding database of the first switch has no corresponding address entry,” as recited in claim 1.

Kalkunte does not cure the deficiencies of *Goodwin*. *Kalkunte* teaches a switch-on-chip (SOC) 10 that “includes a plurality of Ethernet Port Interface Controllers (EPIC) 20a, 20b, 20c, etc.” (col. 4, lines 57-58). “[E]ach EPIC 20 supports 8 fast ethernet ports 13, and switches packets to and/or from these ports as may be appropriate” (col. 5, lines 20-22). *Kalkunte* does not teach or suggest “the first switch sending a refresh packet to the second switch when the first switch receives a network packet containing address information indicating that the forwarding database of the first switch has no corresponding address entry,” as recited in claim 1.

The Examiner cites *Kalkunte* to allegedly teach the claimed first switch sending a refresh packet to the second switch when the first switch receives a network packet containing address information that a corresponding address entry in the forwarding

database of the second network switch has expired (Office Action at page 5).

Applicants respectfully disagree.

In *Kalkunte*, the “SOC utilizes a unique method of table synchronization and aging” (col. 22, lines 34-35). The aging is achieved with an ARL aging process that determines if the age timer has expired. “If the timer has expired, the aging begins by examining the first entry in the ARL table 21” (col. 23, lines 1-2). It determines the each entry in the table, and, when the last entry is located, the age timer restarts (col. 23, lines 3-8).

The expiration of the timer triggers the aging process to identify entries in a table to determine the last entry. However, the age timer is provided “within each EPIC module 20” (col. 22, line 66). There is no teaching, in this passage or any other passage of *Kalkunte*, that this aging process executes based on a first switch that contains a network packet. Therefore, *Kalkunte* does not teach “a first switch sending a refresh packet to a second switch when the first switch receives a network packet ... containing address information indicating that a corresponding address entry in the forwarding database of the second network switch has expired,” as recited in claim 1.

Accordingly, *Goodwin* and *Kalkunte* fail to establish a *prima facie* case of obviousness with respect to claim 1, at least because the references fail to teach each and every element of the claim. Claims 2-3 and 5-10 depend from claim 1 and are thus also allowable over *Goodwin* in view of *Kalkunte*, for at least the same reasons as claim 1.

Independent claims 11, 20, 27, 30 and 35, though of different scope from claim 1 and from each other, recite limitations similar to those set forth above with respect to

claim 1. Claim 11, 20, 27, 30 and 35 are therefore allowable for at least the reasons presented above.

Claims 12-15 and 17-19, 21-26, 28-29, 31 and 33-34, and 37-40 are also allowable at least due to their depending from claims 11, 20, 27, 30, and 35, respectively.

II. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

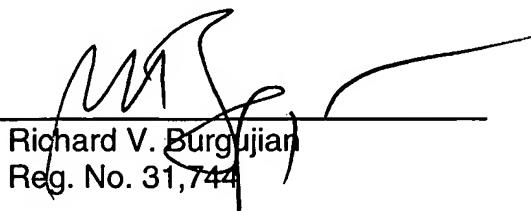
Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: April 20, 2006

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